
□ ENERGY COMPETITION OR COOPERATION: SHIFTING THE PARADIGM

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All international energy market participants can achieve their individual goals by working toward the common objective of a new playing field that allows the market to work: a network of operating rules and guidelines that lets countries, industries, and technologies compete, writes Stanislaw. He leaves no doubt that it is not going to be easy and may require a radical change in the way we view the forces of competition and cooperation. Stanislaw argues that the solution is to establish the economic linkages that connect producing countries to consumers, nationalistic economies to free markets, and energy needs to environmental considerations. This will increase cooperation and create a more stable, sustainable international environment, he says.

National and regional energy markets around the world are more open now to trade, competition, and foreign investment than at any time in history. Even countries such as Saudi Arabia and Mexico, whose petroleum industries remain nationalized, recently have opened up to technological and economic cooperation with foreign companies in natural gas developments. Although Mexico's engagement with international operating companies is under a service contract arrangement, Saudi Arabia's involves foreign investment in the natural gas sector for the first time since the country's petroleum industry was nationalized in 1975. The companies involved span the globe from Russia and China to Italy, Spain, the United Kingdom, and France.

At the same time, 10 years after the signing of the North America Free Trade Agreement, questions regarding an integrated North American energy market remain. Market liberalization around the world is slowing and, for many investors, markets have not opened enough to provide for adequate transparency and true competition. Meanwhile, North American energy supply is again becoming a security issue.

So which is the dominant trend — forward movement toward increasing market liberalization or retreat into further market regulation? When considering the issue of international energy competition versus cooperation, the

question to ask is not who is winning the battle, but rather how the market can accommodate the divergent needs of the individual players and encourage the cooperation that has become more prevalent in recent years.

The International Energy Agency (IEA) estimates that the global energy industry will require an unprecedented \$16 trillion in investment over the coming 30 years. Industries require energy to produce goods and services, while individuals need it to maintain quality of life. Producing countries want a fair price for finding, developing, and producing supplies, but consuming nations need affordable energy on which to build their economies. These forces may seem diametrically opposed, but they can be balanced by encouraging economic linkages between nations that support interdependence. How is this achieved? By recognizing the simple reality that producers need security of demand while consumers need security of supply — and that the role of the market is critical in aligning these needs.

A paradigm shift is required — the issue isn't cooperation or competition, but rather cooperation and competition. All of the participants in international energy markets can achieve their individual goals by working toward the common objective of a new playing field that allows the market to work: a network of operating rules and guidelines that lets countries, industries, and technologies compete.

First and foremost, the playing field must be characterized by transparency in information and decision-making, and especially by good corporate governance. It also must allow recognition of the challenges of sustainable development and encourage rules that ensure players' physical and environmental security, all of which will allow relationships and interdependencies to develop fully. In this way, we can create a win/win situation for producers and consumers, governments and individuals, developed and developing economies: a more stable world where cooperation and competition result in more efficient use of resources and services.

HISTORICAL ENERGY COOPERATION

International cooperation and economic engagement have been characteristic of the energy industry since Ludwig and Robert Nobel began exporting Russian oil to Europe in the late 19th century. A more recent example is the Energy Charter Treaty and Protocol, implemented by the European Council (now known as the Council of the European Union) in the early 1990s. The charter is designed to promote industrial cooperation between the countries of Western Europe and those of Eastern Europe and the former Soviet Union by providing legal safeguards in areas such as investment, transit, and trade.

In 2002 and 2003, two U.S.-Russia Commercial Energy Summits were held under the joint sponsorship of Russia's ministries of Energy and Economic Development & Trade, and the U.S. departments of Commerce and Energy. The summits brought together major oil and gas companies from Russia and the United States to identify opportunities for investment in Russia and improvement of its energy infrastructure.

Growing political cooperation in the energy arena has brought about promising, business-backed projects in recent years. The Baku-Ceyhan oil pipeline — undertaken by BP of the United Kingdom, the State Oil Company of the Azerbaijan Republic, Unocal of the United States, and Norway's Statoil — now connects oil production in the Caspian Sea with demand in Europe and beyond through export facilities at Ceyhan, Turkey. And future plans for natural gas production from Russia's vast Sakhalin Island deposits include exports to Japan, possibly China, and perhaps even the West Coast of the United States. For both projects, the forces driving cooperation are governmental involvement and the reality that a supply source without a market has no value.

COMPETITIVE CONSIDERATIONS

The international energy industry is characterized by three pairs of strong competitive forces:

1. Producing vs. consuming nations

In the past, the Organization of Petroleum Exporting Countries (OPEC) often found itself at political odds with consuming nations. The clearest example of this was the famous Arab oil embargo of the 1970s. However, the 1990s and the new century have brought

change to this historical relationship. The Producer-Consumer Dialogue, a forum that facilitates discussions between oil-producing and -consuming nations, as well as IEA and OPEC, has been underway for almost a decade — now renamed the International Energy Forum. The dialogue focuses on exchange of data, increased transparency of demand and supply information, cooperation between governments and industry, and a better understanding between the two sides of the market. In addition to the growing dialogue, economic cooperation between producers and consumers continues to rise, as can be seen in Mexico's and Saudi Arabia's natural gas projects, as well as a host of others.

2. Competition vs. regulation

A long-standing struggle between market liberalization and market regulation continues today. This occurs both between countries, as seen in U.S. opposition to OPEC market "regulation" via production quotas, and within countries, as evinced by the continuing debate over privatization vs. nationalization.

Russia's energy industry, for example, long state-owned under the Soviet system, has experienced a remarkable shift toward a private investment environment in recent years. As a result, the country has seen an unprecedented 10 percent annual growth in oil production.

3. Economic development vs. sustainability

The increasing focus on environmental responsibility and sustainable development around the globe presents an ongoing challenge for industry and government: how to achieve economic growth profitably while meeting the demands of sustainable development. To be successful, development projects must clear environmental hurdles, win community approval, abide by local laws, and satisfy national governments, all while remaining economically justifiable.

The difficulty of meeting the demands of these sometimes competing forces is obvious. The unwillingness of local citizens to allow construction of power plants in California was a major factor in that state's power crisis in the summer of 2000. On a larger scale, economic considerations prevented key countries from ratifying the Kyoto Treaty, in essence forcing the collapse of years of negotiation.

Finding the right equilibrium between economic and sustainable development considerations will not be easy. To meet growing natural gas demand in the supply-short North American market, for example, the biggest challenge is securing the willingness of local citizens to grant permission for construction of needed liquefied natural gas (LNG) receiving and regasification terminals.

WHO IS WINNING THE BATTLE? THE WRONG QUESTION

The questions that traditionally have been posed regarding the forces of competition and cooperation are: Who is winning the battle — producing or consuming countries? Producing or consuming industries? Developed or developing economies? Traditional or emerging energy industries?

If the parties are to achieve a true paradigm shift, this is the wrong way to approach the “conflict.” The question we should be asking is how best to balance the forces of competition and cooperation.

The solution is to build a bridge. This means establishing or strengthening the economic linkages that connect producing countries to consumers, nationalistic economies to free markets, and energy needs to environmental considerations, and in doing so, increasing cooperation and creating a more stable, sustainable international environment.

THE PLAYING FIELD

Construction of this economic bridge must begin with the creation of a playing field on which all parties can compete to increase market efficiencies and cooperate to satisfy mutual needs. The role of the players — government, industry, consumers, and nongovernmental organizations (NGOs) — is to establish the politics of the playing field by providing better information and greater transparency so that the economic participants can play out the game in an efficient manner. All parties must have access to reliable data regarding demand, demand patterns, and the future direction of demand, as well as alternative supplies and supply development plans.

Such a playing field would enable the participants to compete to provide reliable, affordable energy to meet demand in consuming countries while providing producers — countries as well as companies — with an

accessible market for their goods and services. But beyond just meeting demand, the criteria would enable developing countries to realize their “latent” demand — the unrealized energy demand that arises from people's desire to improve their living standards and contribute to sustainable economic development.

The rules governing international cooperation also must be balanced by the new demand for sustainable development. Individuals' needs for a better standard of living must be balanced with the need, and the desire, for a clean, secure environment.

Probably the single most important stepping stone to this end point is the development of new energy technologies. Cooperation among companies and industries allows technology to be developed in a market setting, and a level playing field creates the rules by which it will flow from one place to another. This is key because technology is not simply transferred — it moves only if the owner derives profit from its movement and the buyer derives benefit.

An important example of technology cooperation is the Fuel Cell Annex to the United States-European Union (EU) Non-Nuclear Energy Cooperation Agreement. The annex, which enables the U.S. Department of Energy to conduct research jointly with EU institutions, is “a key step to moving our joint agenda forward to expand the use of hydrogen as an alternative fuel source,” said Energy Secretary Spencer Abraham when he announced the agreement. Similar cooperation is occurring on the business side. The California Fuel Cell Partnership — a collaboration of 20 auto companies, oil producers, fuel-cell technology companies, and government agencies — aims to place fuel-cell electric vehicles on the road in California. If this disparate group succeeds, the technology will undoubtedly spread rapidly to other states and countries and begin to shift energy demand patterns.

COOPERATION — A PROVEN COMMODITY

In order for emerging countries to have the energy needed to meet their “latent” demand, governments and companies must focus on developing all forms of energy. This will be facilitated by cooperation in the areas of resource development, export schemes, and new energy technologies, all of which ultimately benefit both producers and consumers.

Domestically focused policies can play a positive role in stabilizing the international market. Energy-consuming countries seeking affordable, secure energy supplies typically create policies that encourage diversity of supply, increased use of domestic resources, and development of environmentally friendly and sustainable energy forms. The degree to which a country reduces its need to import energy takes pressure off international markets and increases supply reliability for emerging countries.

Cooperation among nations and companies already has proven successful in achieving remarkable strides in energy development. In addition to the examples cited previously, there are numerous other success stories:

- EU-driven liberalization of the European natural gas market has made great progress in international competition and trade.
- A 1,054-kilometer oil pipeline was built in sub-Saharan Africa by ExxonMobil, Malaysia's state firm Petronas, and ChevronTexaco, linking supplies in Chad with world markets via an Atlantic port in Cameroon.
- The 2,350 kilometer Kazakhstan-to-China oil pipeline, already under construction, will link producing fields in northwest Kazakhstan to refineries in western China, representing significant cooperation between CNPC, Kazakhstan's third largest oil producer owned by China National Petroleum, and KazMunaiGas, Kazakhstan's state oil company.
- The proposed West-East natural gas pipeline from Western China to the Shanghai area will connect a major supply center with one of the most promising new demand markets. The project will be carried out by an alliance of Russian, Chinese, and western energy companies.
- The Nahodka project, under discussion between Russia and Japan, would connect crude oil in East Siberia's Lake Baikal region to an export point on Russia's Pacific Coast (a twin natural gas line could follow).

Also on the horizon are a host of LNG import-export schemes that will link remote natural gas supplies in such diverse places as the Far East, Middle East, and South America to gas-hungry markets in North America, Asia, and Europe.

In order for the players on the world energy scene to improve international stability and security through increased cooperation, there must first be transparency of information regarding supply, demand, and prices among the participants. Once established, the marketplace — governed by necessary levels of market oversight and environmental protection — will drive progress forward.

Open global markets allow private capital to flow and facilitate development of resources and technologies — technologies that both producers and consumers can use to change cost structures, fulfill needs, improve standards of living, and promote sustainable development. But reaching this goal will require unprecedented levels of cooperation and an effective, fair playing field where economic players can interact in the international energy arena. Matching international cooperation and competition is the only way to find the estimated \$16 trillion in energy investment the world will need over the next 30 years. □

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